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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,108	06/20/2001	Francois Court	33808F151	3475

31684 7590 03/22/2006

ARKEMA INC.
PATENT DEPARTMENT - 26TH FLOOR
2000 MARKET STREET
PHILADELPHIA, PA 19103-3222

EXAMINER

MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/884,108	Applicant(s) COURT ET AL.	
	Examiner Jeffrey C. Mullis	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-16,18-20 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16,18-20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-16, 18-20 and 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Court et al. (FR 2772038) in view of Okada (US 5,418,275).

Claim 2 of the patent discloses a composition having 25-95% of semicrystalline thermoplastic and 5-75% of ABC block copolymer. The composition also may contain 10% of a thermoplastic "D" compatible with block C such as BBE at page 6 lines 33-38. Block A may be syndiotactic methylmethacrylate at page 5 line 25 and copolymerized with glycidyl monomers at page 5 line 33 while block B may be hydrogenated polybutadiene at page 6 lines 3-7 and block C may be polystyrene at page 6 lines 8-15. Note that the semicrystalline thermoplastic may be a homopolymer of A and/or C in patent claim 3 and include syndiotactic polystyrene at page 5 lines 9-12.

Note that an ABC polymethylmethacrylate-polybutadiene-polystyrene block copolymer is exemplified in Example 3. Note the last paragraph on page 6 which discloses that polyphenylene ether may be added when the C derived sequences are derived from styrene, i.e. the exemplified block copolymer in patentees' Examples may be combined with the thermoplastics described at the last paragraph on page 6 including polyphenylene ether. There are no specific examples of applicants' combination of polyphenylene ether and polystyrene

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homopolymer although the patent discloses that such materials may be used. However the patent specifically exemplifies applicants' block copolymer and discloses elsewhere that block copolymers containing polystyrene sequences may be combined with polyphenylene ethers. While there are no examples of compositions containing applicants' block copolymer in combination with polystyrene and with polyphenylene ether, patentees disclose examples of applicants' specific block copolymer and also disclose that various polymers including polystyrene may be combined with block copolymer such as those produced in the Example and also discloses that optionally polyphenylene ether may be combined with a block copolymer containing styrene sequences as produced in patentees' Examples and for this reason arrive at a composition containing a block copolymer of patentees' Examples in combination with polyphenylene ether and polystyrene would have been obvious to a practitioner in the expectation of adequate results. Arguably, applicants may disagree since patentees do not disclose any particular benefit of a combination of polyphenylene ether and syndiotactic polystyrene. However note the secondary reference, U.S. Patent 5,418,275 which discloses numerous benefits accruable by use of a combination of polystyrene and syndiotactic polystyrene in the Abstract and therefore use of a combination of syndiotactic polystyrene polyphenylene ether were set out in the Abstract of U.S. Patent 5,418,275 in the composition of the primary reference would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to produce a composition having the superior properties disclosed by the secondary reference absent any showing of surprising or unexpected results.

Applicant's arguments filed 1-6-05 have been fully considered but they are not persuasive. With re to applicants newly added limitation re the ratio of

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PPO:polystyrene, the implication of 10-90 weight per cent is based on the combined weight of the SPS and polystyrene. The level of less than 10 percent "D" (such as PPO) as recited by the patent is based on the amount of block copolymer and thermoplastic resin(s) "X".

Applicants are correct that the "S" block of applicants is comparable to the "C" block of patentees' ABC block copolymer. While the patent teaches that the "C" block is incompatible with the thermoplastic resin "X" (page 7, lines 25-27 of the translation) the patent does not disclose that the "C" block is incompatible with the PPO and in fact polystyrene and PPO are known in the art to be an example of a compatible polymer pair and as such it would be expected by those skilled in the art that the polystyrene "C" block would be compatible with the PPO of patentees' composition. Applicants claims recite that "S is compatible with the resin (A)" and that the resin "A" may consist of (as one choice) a mixture of polystyrene and PPO. The fact that patentees "C" block is compatible with one of the components of the blend would mean that there would be some compatibility between the blend and the block "C". Unpatented claims are given their broadest reasonable interpretation. With re to the incompatibility in the secondary reference, this appear to refer to the incompatibility between PPO and rubber component at column 2, lines 10-15. In any case the incompatibility referred to by both references means incompatible in the absence of a compatibilizer such as block copolymer.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

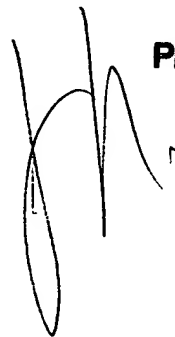
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (571) 272-1075. The examiner can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (571) 272-1078. The fax phone number for this Group is (703) 872-9306.

J. Mullis:

3-14-06


Jeffrey Mullis
Primary Examiner
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